Claims

- 1. Process for the production of nitric acid with a concentration of 50 to 76 % from ammonia and oxygen-bearing gas under pressure, using the mono or dual pressure process, characterised in that
 - the expansion of the tail gas takes place in at least two steps, thereby converting the gas to energy,
 - the said configuration provides for a device arranged between each pair of expansion units and intended for heating the expanded tail gas to a temperature of >450°C, the said system exploiting the waste heat from the nitric acid production process.
- Process according to claim No. 1, characterised in that the invention provides for a gas inlet temperature of 500 to 600°C, preferably 535°C for the expansion steps, thereby supplying drive energy to further consumers.
- Process according to one of the preceding claims, characterised in that it is intended to use the surplus drive energy for a generator in order to produce electric power.
- Process according to claim 3, characterised in that a motor-generator set is used as the output of said machine is sufficient to ensure the compression drive at the plant startup.